



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0303; Directorate Identifier 2012-NM-220-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 747-400 and -400F series airplanes. This proposed AD was prompted by a report of cracks on airplanes prior to line number 1308 in the forward and aft inner chords of the station (STA) 2598 bulkhead, and the bulkhead upper and lower webs. This proposed AD would require, as applicable, repetitive high frequency eddy current (HFEC) and low frequency eddy current (LFEC) inspections for cracks in the splice fitting, support frame, forward and aft inner chords, floor support, bulkhead upper web on the upper left and right side of the bulkhead, and the bulkhead lower web on the lower left side of the bulkhead and repair if necessary; and repetitive post-repair inspections and repair if necessary. We are proposing this AD to detect and correct cracks in the splice fitting, support frame, floor support, forward and aft inner chords, and the bulkhead upper and lower webs of the body station, which could adversely affect the structural integrity of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email: Nathan.P.Weigand@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0303; Directorate Identifier 2012-NM-220-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received a report of cracks, on airplanes prior to line number 1308, in the forward and aft inner chords of the STA 2598 bulkhead, the bulkhead upper and lower webs near the inner chord to shear deck connection in the STA 2598 bulkhead, the forward and aft inner chords and bulkhead upper web in the upper corners of the cutout for the horizontal stabilizer rear spar, and the aft inner chord and lower bulkhead web in the lower corner of the cutout for the horizontal stabilizer rear spar. On airplanes line numbers 1308 through 1419, although there was a production change to the STA 2598 bulkhead, analysis showed that cracks could still occur in the structure. This condition, if not corrected, could adversely affect the structural integrity of the airplane.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA-2013-0303.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information."

The phrase "related investigative actions" might be used in this proposed AD. "Related investigative actions" are follow-on actions that: (1) are related to the primary actions, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

In addition, the phrase "corrective actions" might be used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between the Proposed AD and the Service Information

Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 11 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	28 work-hours X \$85 per hour = \$2,380 per inspection cycle	\$0	\$2,380 per inspection cycle	\$26,180 per inspection cycle

We estimate the following costs to do any necessary repairs and post-repair inspections that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this repair:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair	13 work-hours X \$85 per hour = \$1,105	\$0	\$1,105
Post-repair Inspection	12 work-hours X \$85 per hour = \$1,020	\$0	\$1,020

For any repairs that would be necessary based on the results of the post-repair inspection, we have not received definitive data that would enable us to provide cost estimates for that on-condition action.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2013-0303; Directorate Identifier 2012-NM-220-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-400 and -400F series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by a report of cracks on airplanes prior to line number 1308 in the forward and aft inner chords of the station 2598 bulkhead, and the bulkhead upper and lower webs. We are issuing this AD to detect and correct cracks in the splice fitting, support frame, floor support, forward and aft inner chords, and the bulkhead upper and lower webs of the body station, which could adversely affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) High Frequency Eddy Current (HFEC) and Low Frequency Eddy Current (LFEC) Inspection

At the compliance time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012; except as provided by paragraph (h)(2) of this AD: Do HFEC and LFEC inspections, as applicable, for cracks in the splice fitting, support frame, floor support, forward and aft inner chords, the bulkhead upper web on the upper left and right side of the bulkhead, and the bulkhead lower web on the lower left side of the bulkhead, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(1) If no cracking is found, repeat the applicable inspections specified in paragraph (g) of this AD, thereafter at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(2) If any cracking is found, do the actions specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD.

(i) Before further flight, do the applicable repair, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012; except as provided by paragraph (h)(1) of this AD.

(ii) At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, do an HFEC and LFEC inspections for cracks in the unrepaired structure, which includes splice fitting, support frame, aft and forward inner chord, and the bulkhead upper web; and do an HFEC inspection for cracks in the repaired structure, which is the bulkhead upper web; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(A) If no cracking is found, repeat the applicable HFEC and LFEC inspections specified in paragraph (g)(2)(ii) of this AD, thereafter at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(B) If any cracking is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(h) Exception to the Service Information

(1) If any crack is found during any inspection required by this AD, and Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, specifies to contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(2) Where Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, specifies a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(j) Related Information

(1) For more information about this AD, contact Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email: Nathan.P.Weigand@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425 227-1221.

Issued in Renton, Washington, on March 28, 2013.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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